

CLAIMS

What is claimed is:

- 1 1. A hard disk drive having two modes of operation, the hard disk drive comprising:
2 means for setting a desired temperature range for when the hard disk drive is being
3 tested;
4 means for, upon determining that a temperature inside the hard disk drive is below the
5 desired temperature range, changing a mode of operation of the hard disk drive from a first mode
6 of operation to a second mode of operation, wherein the first mode of operation generates less
7 heat than the second mode of operation; and
8 means for, upon determining that the temperature inside the hard disk drive is above the
9 desired temperature range, changing the mode of operation of the hard disk drive from the
10 second mode of operation to the first mode of operation.
- 1 2. The hard disk drive of claim 1, wherein the first and second modes of operation are seek
2 modes, and wherein the first seek mode is slower than the second seek mode.
- 1 3. The hard disk drive of claim 1, wherein the first mode of operation is an IDLE seek mode
2 and the second mode of operation is a rapid seek mode.
- 1 4. The hard disk drive of claim 1, further comprising a temperature sensor inside an
2 enclosure housing the hard disk drive.
- 1 5. The hard disk drive of claim 1, wherein the hard disk drive is being tested post-delivery
2 to a user during operational conditions.
- 1 6. The hard disk drive of claim 1, wherein the first mode of operation has a slower disk
2 rotation speed than the second mode of operation.

1 7. The hard disk drive of claim 1, wherein the first mode of operation has a slower clock
2 speed than a second mode of operation for a processor within the hard disk drive.

1 8. A hard disk drive capable of maintaining a steady internal temperature during testing
2 operations of the hard disk drive, the hard disk drive having two modes of operation, the hard
3 disk drive comprising:

4 means for setting a desired temperature range for the hard disk drive during testing;

5 means for, upon determining that a temperature inside the hard disk drive is below the
6 desired temperature range, changing a mode of operation of the hard disk drive from a first mode
7 of operation to a second mode of operation, wherein the first mode of operation generates less
8 heat than the second mode of operation; and

9 means for, upon determining that the temperature inside the hard disk drive is above the
10 desired temperature range, changing the mode of operation of the hard disk drive from the
11 second mode of operations to the first mode of operation.

1 9. The hard disk drive of claim 8, wherein the first and second modes of operation are seek
2 modes, and wherein the first seek mode is slower than the second seek mode.

1 10. The hard disk drive of claim 8, wherein the first mode of operation is an IDLE seek mode
2 and the second mode of operation is a rapid seek mode.

1 11. The hard disk drive of claim 8, wherein the temperature inside the hard disk drive is
2 measured by a sensor inside an enclosure housing the hard disk drive.

1 12. The hard disk drive of claim 8, wherein the hard disk drive is being tested post-delivery
2 to a user during operational conditions.

1 13. The hard disk drive of claim 8, wherein the first mode of operation has a slower disk
2 rotation speed than the second mode of operation.

1 14. The hard disk drive of claim 8, wherein the first mode of operation has a slower clock
2 speed than the second mode of operation for a processor within the hard disk drive.

1 15. A hard disk drive capable of being rapidly warmed before testing, the hard disk drive
2 having a first and second mode of operation, the hard disk drive comprising:
3 means for setting a desired temperature range for a hard disk drive that is to be tested;
4 and
5 means for, upon determining that a temperature inside the hard disk drive is below the
6 desired temperature range, setting a mode of operation of the hard disk drive to a first mode of
7 operation, wherein the first mode of operation generates more heat than a second mode of
8 operation, until the desired temperature range is reached.

1 16. The hard disk drive of claim 15, wherein the first mode of operation is a seek mode that
2 is faster than the second mode of operation.

1 17. The hard disk drive of claim 15, wherein the first mode of operation is a rapid seek mode
2 and the second mode of operation is an IDLE seek mode.

3 18. The hard disk drive of claim 15, wherein the temperature inside the hard disk drive is
4 measured by a sensor inside an enclosure housing the hard disk drive.

1 19. The hard disk drive of claim 15, wherein the hard disk drive is being tested post-delivery
2 to a user during operational conditions.

1 20. The hard disk drive of claim 15, wherein the first mode of operation has a slower disk
2 rotation speed than a second mode of operation.